

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless communication device, comprising:
 - a connection table for storing one or more connection identifiers, wherein a connection identifier corresponds to a Packet Coordination Function (PCF) that has been previously visited by the wireless communication device, the connection table indicating whether a connection between the wireless communication device and each PCF is active;
 - a receiver for receiving a connection identifier;
 - a processor for determining if the received connection identifier is contained in the connection table, and for delivering the received connection identifier to the connection table for storing when the received connection identifier is not contained in the connection table;
 - a transmitter for sending a registration in response to the received connection identifier when the received connection identifier is not contained in the connection table; and
 - a ~~corresponding timer~~ first inactivity timer associated with the connection identifier, wherein the processor removes the connection identifier from the connection table in response to an expiration of the ~~corresponding~~ first inactivity timer, the first inactivity timer configured to expire before a second inactivity timer maintained in a PDSN to which the wireless communication device is connected via the PCF and which is also associated with the connection identifier;
- wherein the processor resets the ~~corresponding~~ first activity timer in response to activity on a connection corresponding to the connection identifier, and
- wherein the processor is further operable to determine that the registration is not needed if the processor determines that received connection identifier is contained in the connection table.

2-4. (Canceled).

5. (Previously Presented) The wireless communication device of claim 1, wherein the processor clears the connection table when a connection is received corresponding to a

Packet Data Serving Node (PDSN) that is different from a PDSN corresponding to a previously stored connection.

6. (Previously Presented) The wireless communication device of claim 1, wherein the processor clears the connection table when a clear table message is received by the receiver.

7. (Previously Presented) A Packet Data Serving Node (PDSN), operable with a plurality of PCFs via a corresponding plurality of connections, each PCF operable to communicate with one or more wireless communication devices, the PDSN further operable with a network for directing data for transmission to one or more wireless communication devices, comprising:

a connection table for storing a plurality of connection sets, each connection set comprising one or more connections associated with a wireless communication device, wherein a first timer in the PDSN and a second timer in the wireless communication device correspond to each of the connections and wherein the first timer is set to expire after the second timer;

a processor for selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed from the network; and

a buffer for receiving data from the network that is designated for delivery to a wireless communication device, storing the received data until the wireless communication device is located, based on an active connection, on one of the connections in the connection set and transmitting the stored data on the selected connection to the wireless communication device.

8. (Canceled).

9. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 7, wherein an active connection identifier is stored in the connection table to identify zero or one active connection for each wireless communication device.

10. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 9, wherein the processor selects all of the connections associated with a wireless communication

device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

11. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 9, wherein the processor selects a subset of the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

12. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 9, wherein the processor selects the most recent active connection from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

13. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 9, wherein the processor selects one or more connections randomly from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

14. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 7, further comprising a plurality of timers corresponding to the plurality of stored connections, wherein the processor removes a connection from the connection table upon expiration of one of the plurality of timers associated with the connection.

15. (Previously Presented) The Packet Data Serving Node (PDSN) of claim 14, wherein the processor resets one of the plurality of timers in response to an activity indicator associated with the mobile station on the corresponding connection.

16-19. (Canceled)

20. (Currently Amended) A method of registering and maintaining connections, comprising:

receiving a connection identifier at a wireless communication device;

determining if the received connection identifier is contained in a connection table, and registering a connection in response to a received connection not contained in the connection table;

storing the received connection identifier in the connection table when the connection is not contained in the connection table, wherein the connection identifier corresponds to a Packet Coordination Function (PCF) that has been previously visited by the wireless communication device and indicates whether a connection between the PCF and the wireless communication device is active;

determining that the registration is not needed if the received connection identifier is in the connection table; and

removing the connection identifier from the connection table in response to expiration of an associated timer a first inactivity timer associated with the connection identifier and maintained by the wireless communication device, the first inactivity timer configured to expire before a second inactivity timer maintained in a PDSN to which the wireless communication device is connected via the PCF and which is also associated with the connection identifier;

wherein the ~~associated~~ first inactivity timer is reset in response to activity on the connection corresponding to the connection identifier.

21. (Canceled)

22. (Original) The method of claim 20, further comprising:

receiving a clear table message; and

clearing the connection table in response to the clear table message.

23. (Previously Presented) A method of registering and maintaining connections, comprising:

establishing one or more connections with one or more PCFs;

storing a plurality of connection sets in a connection table, each connection set comprising one or more connections with a PCF and associated with a wireless communication device;

buffering received data from a network that is designated to a wireless communication device, storing the received data until the wireless communication device is located, based on an active connection, on one of the connections in the connection set;

selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed and transmitting the stored data on the selected connection to the wireless communication device; and

maintaining a plurality of first timers that correspond to each of the connections and wherein each of the plurality of first timers are set to expire after each of a plurality of second timers in the wireless communication device.

24. (Canceled).

25. (Original) The method of claim 23, further comprising maintaining a plurality of timers corresponding to the plurality of stored connections and removing a connection from the connection table upon expiration of one of the plurality of timers associated with the connection.

26-27. (Canceled)

28. (Currently Amended) An apparatus, comprising:
means for receiving a connection identifier at a wireless communication device;
means for storing the received connection identifier in a connection table when the connection is not contained in the connection table, wherein a connection identifier corresponds to a Packet Coordination Function (PCF) that has been previously visited by the apparatus and indicates whether a connection between the PCF and the wireless communication device is active;
means for determining if the received connection identifier is contained in a connection table, and

means for registering a connection in response to a received connection not contained in the connection table;

means for determining that the registration is not needed if the received connection identifier is in the connection table; and

means for removing the connection identifier from the connection table in response to expiration of ~~an associated timer~~ a first inactivity timer associated with the connection identifier and maintained by the wireless communication device, the first inactivity timer configured to expire before a second inactivity timer maintained in a PDSN to which the wireless communication device is connected via the PCF and which is also associated with the connection identifier;

wherein the ~~associated~~ first inactivity timer is reset in response to activity on the connection corresponding to the connection identifier.

29. (Previously Presented) An apparatus, comprising:

means for establishing one or more connections with one or more PCFs;

means for storing a plurality of connection sets in a connection table, each connection set comprising one or more connections with a PCF and associated with a wireless communication device, wherein a first timer in the apparatus and a second timer in the wireless communication device correspond to each of the connections and wherein the first timer is set to expire after the second timer;

means for buffering received data from a network that is designated to a wireless communication device;

means for storing the received data until the wireless communication device is located, based on an active connection, on one of the connections in the connection set;

means for selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed; and

means for transmitting the stored data on the selected connection to the wireless communication device.

30-33. (Canceled)